

## Part 7 TRAFFIC CONTROL FOR SCHOOL AREAS May 16, 2011

- Paragraphs are numbered
- *Guidance is italicized*
- No more metric
- Definitions relocated to Part 1

## Section 7B.01 Size of School Signs

### Standard:

01 Except as provided in Section 2A.11, the sizes of signs and  
in school areas shall be as shown in Table 7B-1.

02 The sizes in the Conventional Road column shall be used unless  
a minimum or oversized sign size would be more appropriate.

03 The sizes in the Minimum column shall be used only where  
30 mph or lower, as determined by engineering judgment.

04 The sizes in the Oversized column shall be used on express

### Guidance:

05 *The sizes in the Oversized column should be used on roadway  
speed limits of 40 mph or higher.*

### Option:

06 The sizes in the Oversized column may also be used at other locations to  
improve recognition, or increase legibility.

07 Signs and plaques larger than those shown in Table 7B-1 may

- **Standards remain bold**
- Options and support remain unformatted

### Standard:

01 When used in this Manual, the text headings of Standard, Guidance, Option, and Support shall be defined as follows:

- A. **Standard**—a statement of required, mandatory, or specifically prohibitive practice regarding a traffic control device. All Standard statements are labeled, and the text appears in bold type. The verb “shall” is typically used. The verbs “should” and “may” are not used in Standard statements. Standard statements are sometimes modified by Options. Standard statements shall not be modified or compromised based on engineering judgment or engineering study.
- B. **Guidance**—a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate. All Guidance statements are labeled, and the text appears in unbold type. The verb “should” is typically used. The verbs “shall” and “may” are not used in Guidance statements. Guidance statements are sometimes modified by Options.
- C. **Option**—a statement of practice that is a permissive condition and carries no requirement or recommendation. Option statements sometime contain allowable modifications to a Standard or Guidance statement. All Option statements are labeled, and the text appears in unbold type. The verb “may” is typically used. The verbs “shall” and “should” are not used in Option statements.
- D. **Support**—an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support statements are labeled, and the text appears in unbold type. The verbs “shall,” “should,” and “may” are not used in Support statements.

- **Standards are requirements that SHALL be followed unless there is an Option**
- *Guidance is recommended and SHOULD be followed*
- Options MAY be followed and are sometimes modifications to Standards and Guidance

- **Deleted Sections**
  - Sections 7A.05 through 7A.10
  - Section 7C.02 through 7C.06
  - Chapter 7D – Signals
  - References to Student Patrols in existing Chapter 7E
  - Chapter 7F – Grade-Separated Crossings
- **Most Delaware Revisions introduced in Part 7 of the prior DE MUTCD were retained in the new manual.**

Today's training will focus on the new changes to the Federal MUTCD and significant DE Revisions to the new manual

## **PART 7 – TRAFFIC CONTROL FOR SCHOOL AREAS**

- 7A: General
- 7B: Signs
- 7C: Markings
- 7D: Crossing Supervision



### Standard: **DRAFT**

10A (DE Revision) Title 21, Chapter 41, Subchapter VIII, §4169 of the Delaware Code establishes that where no special hazard exists the speed limit in school zones shall be 20 mph where 20 mph regulatory signs are posted and state the specific time periods or under what conditions during which the 20 mph speed is in effect.

#### Guidance:

10B (DE Revision) In general the 20 mph speed limit should be applied only in locations where there is a reasonable expectation of children walking to/from school.

#### Option:

10C (DE Revision) Title 21, Chapter 41, Subchapter VIII, §4169 of the Delaware Code establishes that on the basis of engineering study or investigation a maximum speed limit greater or less than 20 mph may be established by the Department of Transportation. Factors that may be considered in such an investigation and study can include: location and surrounding environment of the school, driver expectation, existing posted speed limit along the adjacent and surrounding roadways, traffic volumes and vehicle operating characteristics, the presence or absence of children walking to or from school, etc.



## Reduced speed limits for school areas

- DE Revision (was Support, now **Standard/Guidance**):
  - Per DE Code, speed limit within School zone shall be 20 mph where 20 mph signs are posted with time period
  - Reduced speed limits should only be applied where *reasonable expectation of children being present*
  - Option: Per DE Code, may post some other speed limit for the school zone based on engineering study

**Standard:**

03 The sizes in the Minimum column shall be used only where traffic volumes are low and speeds are 30 mph or lower, as determined by engineering judgment.

Revised section:

- **New Standard describing the locations where minimum size school signs can be used:**

- Low traffic volumes, and
- Speeds < 30 mph

- New Guidance and Options also added pertaining to oversized sign use, consistent with Part 2

Sign	Sign Designation	Section	Conventional Road	Minimum	Oversized
School	S1-1	7B.08	36 x 36	30 x 30	48 x 48
School Bus Stop Ahead	S3-1	7B.13	36 x 36	30 x 30	48 x 48
School Bus Turn Ahead	S3-2	7B.14	36 x 36	30 x 30	48 x 48
Reduced School Speed Limit Ahead	S4-5, S4-5a	7B.16	36 x 36	30 x 30	48 x 48
School Speed Limit XX When Flashing	S5-1	7B.15	24 x 48	—	36 x 72
End School Zone	S5-2	7B.09	24 x 30	—	36 x 48
End School Speed Limit	S5-3	7B.15	24 x 30	—	36 x 48
In-Street Ped Crossing	R1-6, R1-6a, R1-6b, R1-6c	7B.11, 7B.12	12 x 36	—	—
Speed Limit (School Use)	R2-1	7B.15	24 x 30	—	36 x 48
Begin Higher Fines Zone	R2-10	7B.10	24 x 30	—	36 x 48
End Higher Fines Zone	R2-11	7B.10	24 x 30	—	36 x 48

Plaque	Sign Designation	Section	Conventional Road	Minimum	Oversized
X:XX to X:XX AM X:XX to X:XX PM	S4-1P	7B.15	24 x 10	—	36 x 18
When Children Are Present	S4-2P	7B.15	24 x 10	—	36 x 18
School	S4-3P	7B.09, 7B.15	24 x 8	—	36 x 12
When Flashing	S4-4P	7B.15	24 x 10	—	36 x 18
Mon-Fri	S4-6P	7B.15	24 x 10	—	36 x 18
All Year	S4-7P	7B.09	24 x 12	—	30 x 18
Fines Higher	R2-6P	7B.10	24 x 18	—	36 x 24
XX Feet	W16-2P	7B.08	24 x 18	—	30 x 24
XX Ft	W16-2aP	7B.08	24 x 12	—	30 x 18
Turn Arrow	W16-5P	7B.08, 7B.09,	24 x 12	—	30 x 18
			24 x 12	—	30 x 18
			24 x 12	—	30 x 18
			21 x 15	—	—
			24 x 12	—	30 x 18

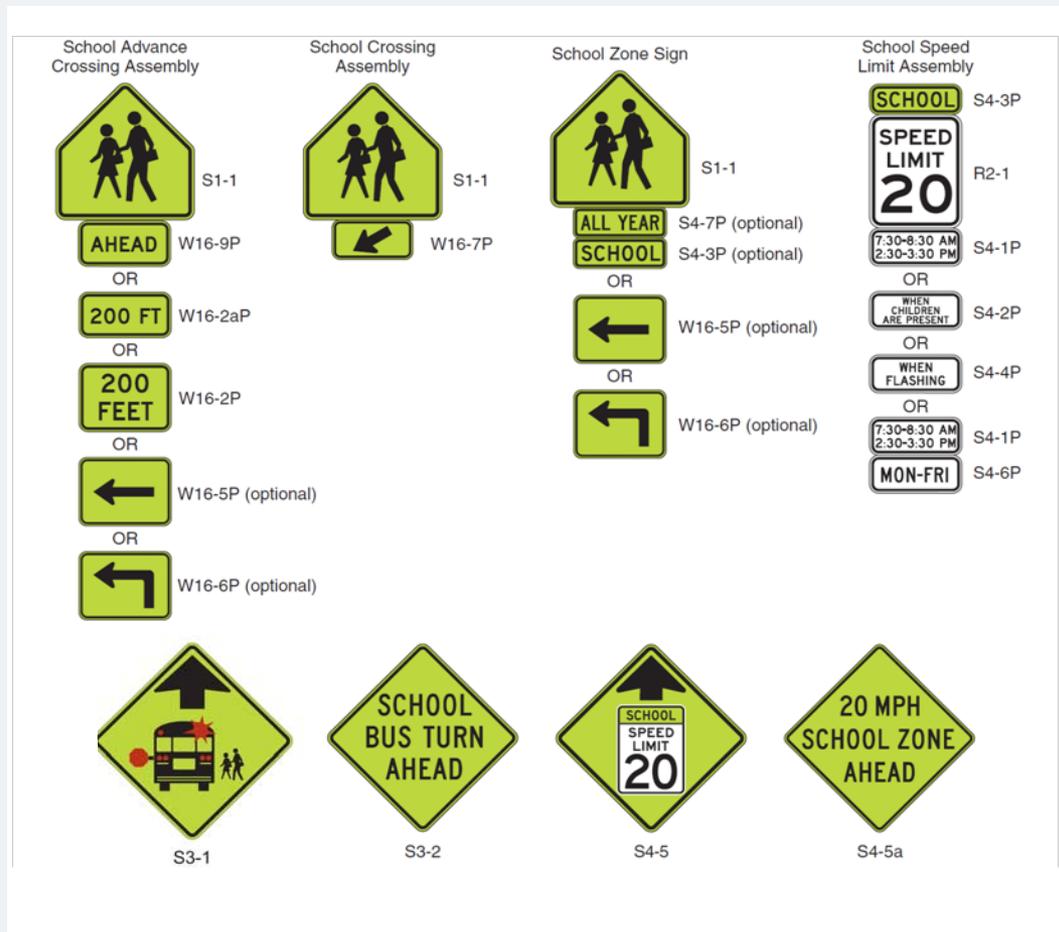
Column was in old manual, but without a standard indicating appropriate applications

**Standard:**

01 School warning signs, including the “SCHOOL” portion of the School Speed Limit (S5-1) sign and including any supplemental plaques used in association with these warning signs, shall have a fluorescent yellow-green background with a black legend and border unless otherwise provided in this Manual for a specific sign.

**New standard:**

- **Color of all school warning signs shall be FYG**
  - Previously an option
  - Includes “SCHOOL” portion of School Speed Limit signs
  - Also applies to pixels of a DMS when “SCHOOL” is displayed for a school speed limit



# Section 7B.07 – Sign Color for School Warning Signs

**Incorrect**



Fluorescent-  
Yellow

**Correct**



Fluorescent-  
Yellow Green

# Section 7B.07 – Sign Color for School Warning Signs

Sign color correct.  
Sign placement  
could be improved.



**Fairview Elementary**

# Section 7B.07 – Sign Color for School Warning Signs



Plaques should be FYG

Note: Period of Day Plaque should also be revised →

- 7:30-8:30 AM  
2:30-3:30 PM S4-1P
- OR
- WHEN CHILDREN ARE PRESENT S4-2P
- OR
- WHEN FLASHING S4-4P
- OR
- 7:30-8:30 AM  
2:30-3:30 PM S4-1P
- MON-FRI S4-6P



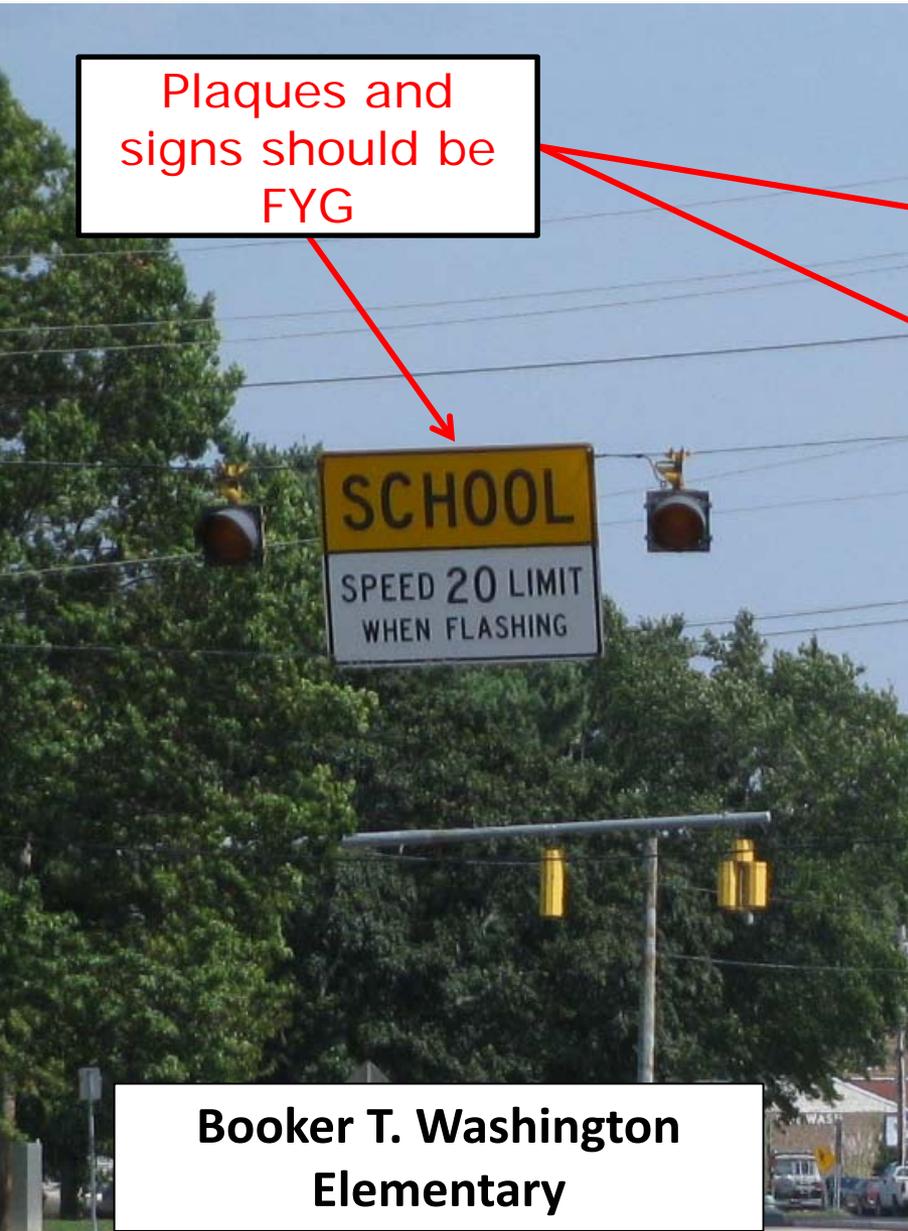
S1-1 sign should not have crosswalk lines

W. B. Simpson Elementary

South Dover Elementary

# Section 7B.07 – Sign Color for School Warning Signs

Plaques and signs should be FYG



**Booker T. Washington Elementary**



S5-1-DE sign being revised: Bottom portion black on white like this one

**North Dover Elementary**

## Section 7B.07 – Sign Color for School Warning Signs

Guidance: **DRAFT**

02 (DE Revision) In situations where warning signs not associated with schools are located within a school zone, the non-school zone warning signs should be yellow with a black legend.

03 (DE Revision) If a pedestrian crossing is located within a school zone, but is not part of an established route to school, the warning signs for that crossing, if used, should be yellow with a black legend (W11-2 assembly).

### DE Revision:

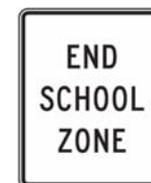
- FYG should be used for all warning signs pertaining to the school zone
  - Starting with the School Zone (S1-1) sign
  - Ending with the END SCHOOL ZONE (S5-2) sign
- Non-school zone signs within the school zone should remain FY
  - This includes pedestrian crossings that are not part of an established route to school



S1-1



W1-2



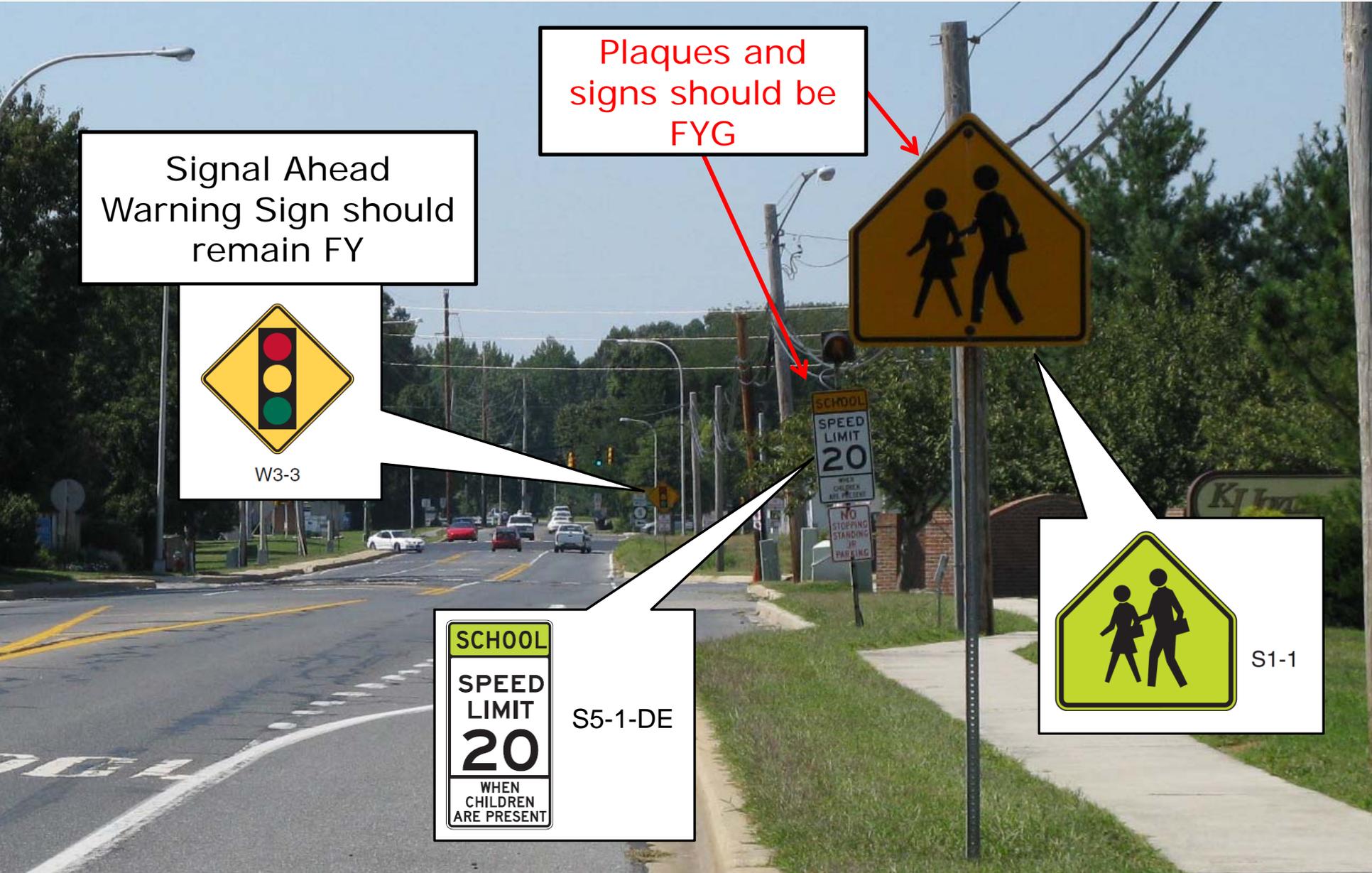
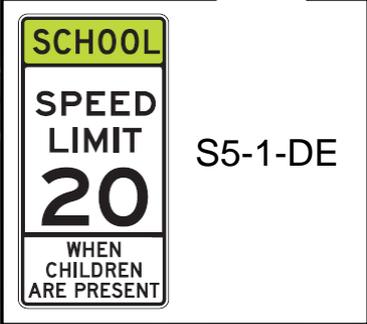
S5-2

# Section 7B.07 – Sign Color for School Warning Signs

Signal Ahead  
Warning Sign should  
remain FY



Plaques and  
signs should be  
FYG



## Section 7B.08 – School Sign (S1-1) and Plaques

### Support:

- 02 The School (S1-1) sign (see Figure 7B-1) has the following four applications:
- School Area – the S1-1 sign can be used to warn road users that they are approaching a school area that might include school buildings or grounds, a school crossing, or school related activity adjacent to the highway.
  - School Zone – the S1-1 sign can be used to identify the location of the beginning of a designated school zone (see Section 7B.09).
  - School Advance Crossing – if combined with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque to comprise the School Advance Crossing assembly, the S1-1 sign can be used to warn road users that they are approaching a crossing where schoolchildren cross the roadway (see Section 7B.11).
  - School Crossing – if combined with a diagonal downward pointing arrow (W16-7P) plaque to comprise the School Crossing assembly, the S1-1 sign can be used to warn approaching road users of the location of a crossing where schoolchildren cross the roadway (see Section 7B.12).

### Revised section

- Clarified use of School (S1-1) sign
  - School Area – Any school related activity adjacent to highway
  - School Zone – Designated school zones
  - School Advance Crossing – Approaching a crossing where schoolchildren cross
  - School Crossing – At a crossing where schoolchildren cross



S1-1

# Section 7B.08 – School Sign (S1-1) and Plaques

Support:

- 02 The School (S1-1) sign (see Figure 7B-1) has the following four applications:
  - A. School Area – the S1-1 sign can be used to warn road users that they are approaching a school area that might include school buildings or grounds, a school crossing, or school related activity adjacent to the highway.
  - B. School Zone – the S1-1 sign can be used to identify the location of the beginning of a designated school zone (see Section 7B.09).
  - C. School Advance Crossing – if combined with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque to comprise the School Advance Crossing assembly, the S1-1 sign can be used to warn road users that they are approaching a crossing where schoolchildren cross the roadway (see Section 7B.11).
  - D. School Crossing – if combined with a diagonal downward pointing arrow (W16-7P) plaque to comprise the School Crossing assembly, the S1-1 sign can be used to warn approaching road users of the location of a crossing where schoolchildren cross the roadway (see Section 7B.12).

## A. & B.

School Zone Sign



S1-1

ALL YEAR

S4-7P (optional)

SCHOOL

S4-3P (optional)

OR



W16-5P (optional)

## C.

School Advance Crossing Assembly



S1-1

AHEAD

W16-9P

OR

200 FT

W16-2aP

## D.

School Crossing Assembly



S1-1



W16-7P

A Shall condition (7B.11) for all Advance Crossing Assemblies **Jan 2011 compliance date**

## Section 7B.09 – School Zone Sign (S1-1) and Plaques

### Standard:

01 If a school zone has been designated under State or local statute, a School (S1-1) sign (see Figure 7B-1) shall be installed to identify the beginning point(s) of the designated school zone (see Figure 7B-2).

### Option:

04 The downstream end of a designated school zone may be identified with an END SCHOOL ZONE (S5-2) sign (see Figures 7B-1 and 7B-2).

### Guidance: **DRAFT**

05A (DE Revision) On state-maintained roads, the END SCHOOL ZONE (S5-2) sign should be used to designate the end of the school zone in lieu of the regulatory speed limit sign.

### New Standard:

- A School (S1-1) sign shall be installed to identify the beginning point of a designated school zone

Previously a Standard, now Option:

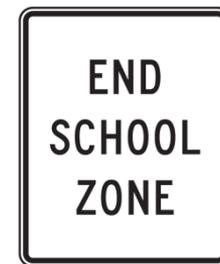
- An END SCHOOL ZONE (S5-2) sign may be used to identify the end of a designated school zone

Strengthened with a DE Revision (in Part 7B.15):

- An END SCHOOL ZONE (S5-2) sign should be used to identify the end of a designated school zone



S1-1



S5-2

## Section 7B.09 – School Zone Sign (S1-1) and Plaques

### Option:

- 02 A School Zone (S1-1) sign may be supplemented with a SCHOOL (S4-3P) plaque (see Figure 7B-1).
- 03 A School Zone (S1-1) sign may be supplemented with an ALL YEAR (S4-7P) plaque (see Figure 7B-1) if the school operates on a 12-month schedule.
- 05 If a school zone is located on a cross street in close proximity to the intersection, a School Zone (S1-1) sign with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school zone soon after making the turn.

### New Option:

- New plaques may be used to supplement the School Zone (S1-1) sign
  - SCHOOL (S4-3P) and ALL YEAR (S4-7P)
  - On cross streets in close proximity to a school zone:  
Turn Arrow (W16-5P) and Advance Turn Arrow (W16-6P)



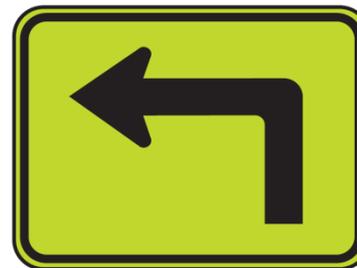
S4-3P



S4-7P



W16-5P



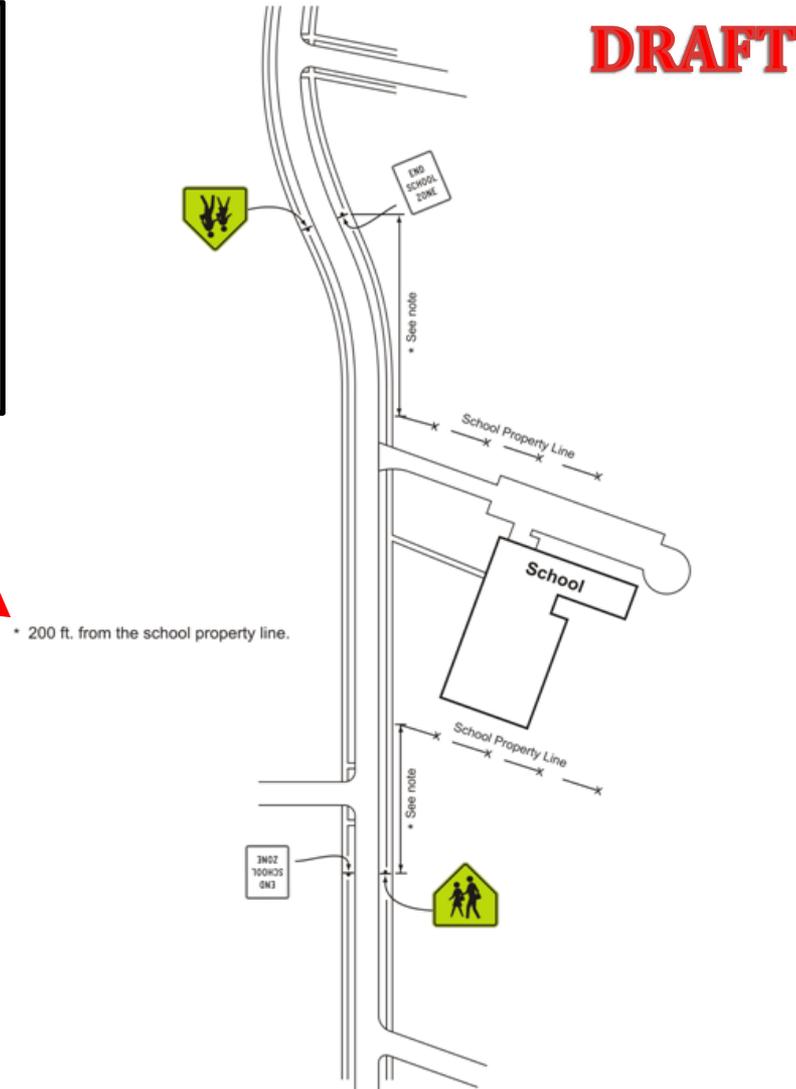
W16-6P

# Section 7B.09 – School Zone Sign (S1-1) and Plaques

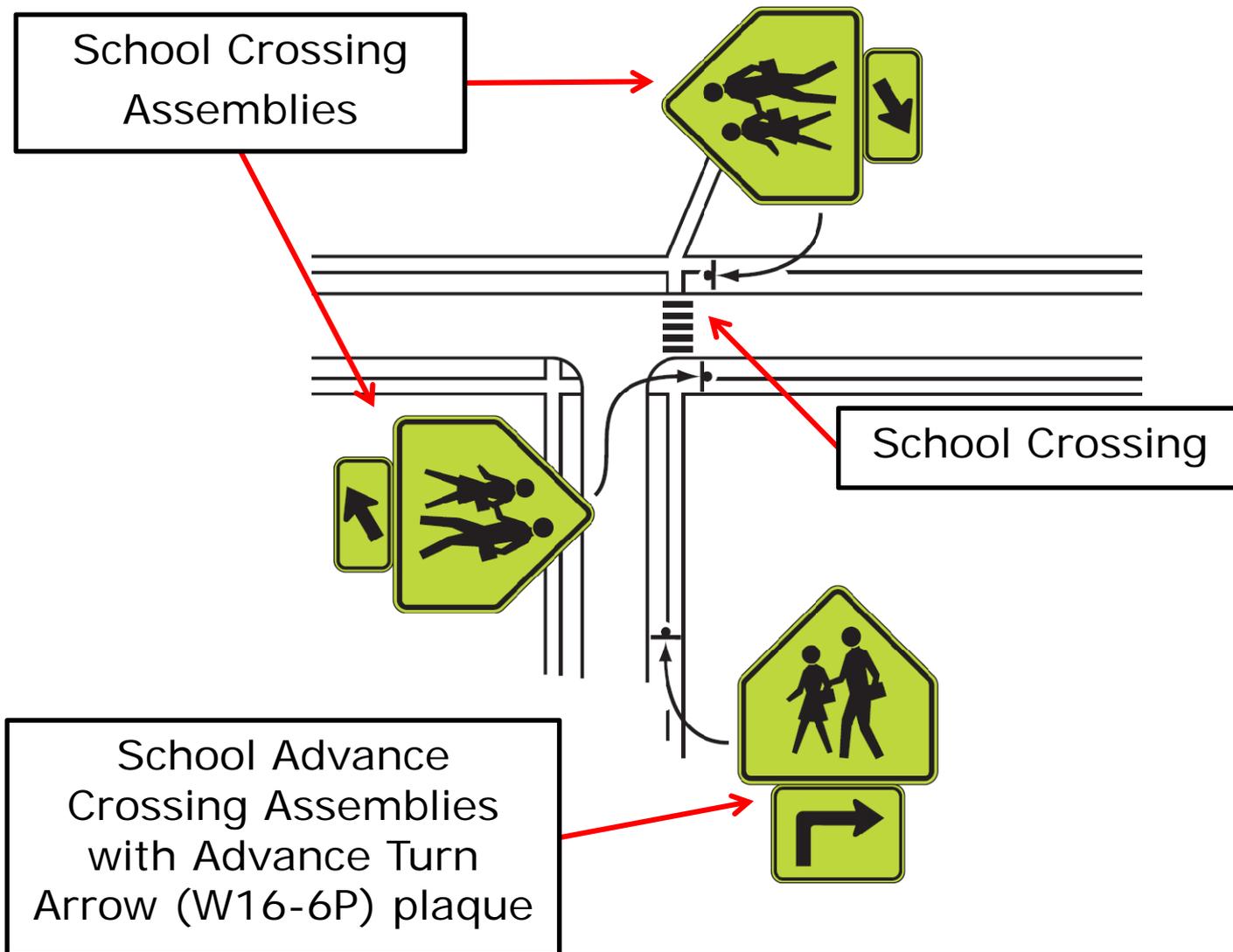
Figure 7B-2. Example of Signing for a School Zone without a Marked School Crosswalk and without a Reduced School Speed Limit Zone  
(Delaware Revision)

“old” MUTCD shows  
200' from crosswalk or  
100' from school  
property line.

New MUTCD: 200'  
from property line

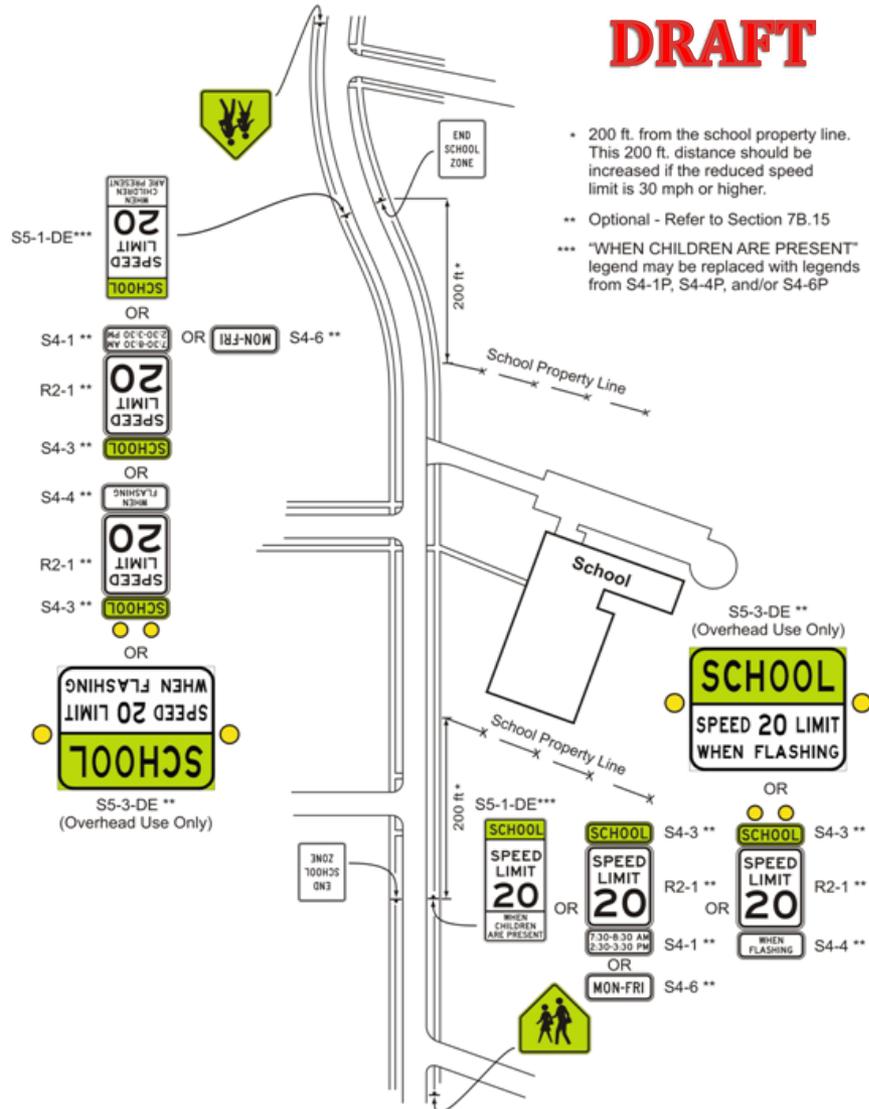


# Section 7B.09 – School Zone Sign (S1-1) and Plaques



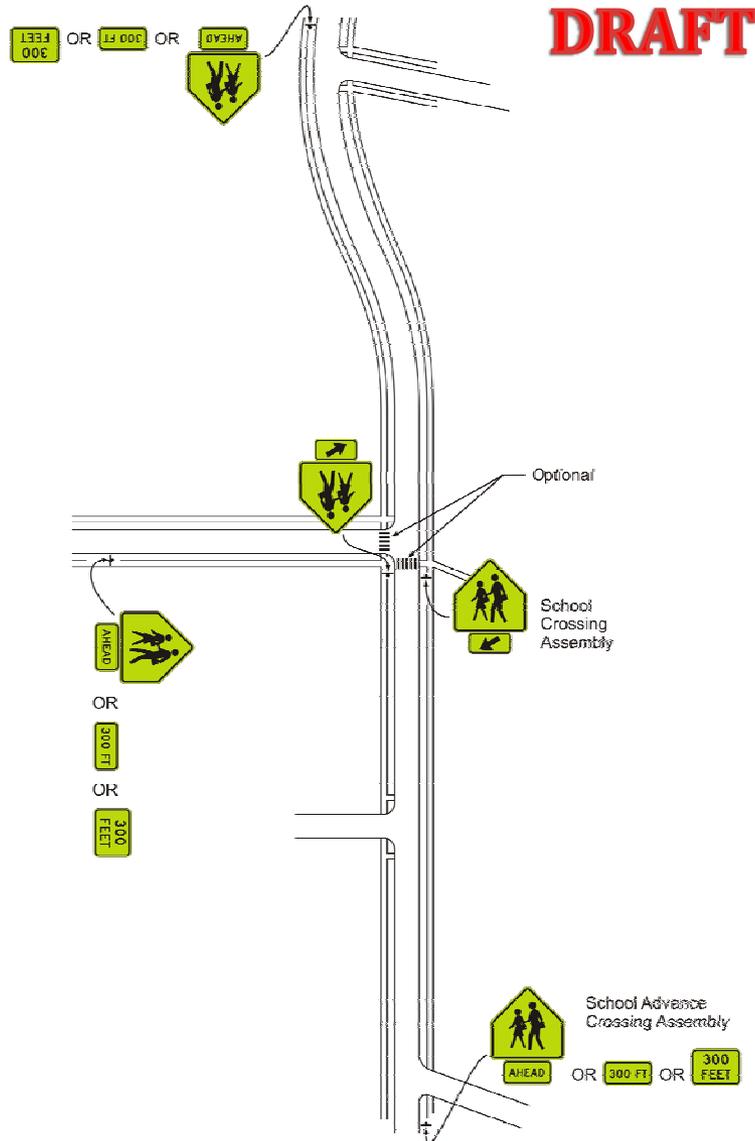
# Section 7B.09 – School Zone Sign (S1-1) and Plaques

**Figure 7B-3. Example of Signing for a School Zone without a Marked School Crosswalk and with a Reduced School Speed Limit Zone (Delaware Revision)**



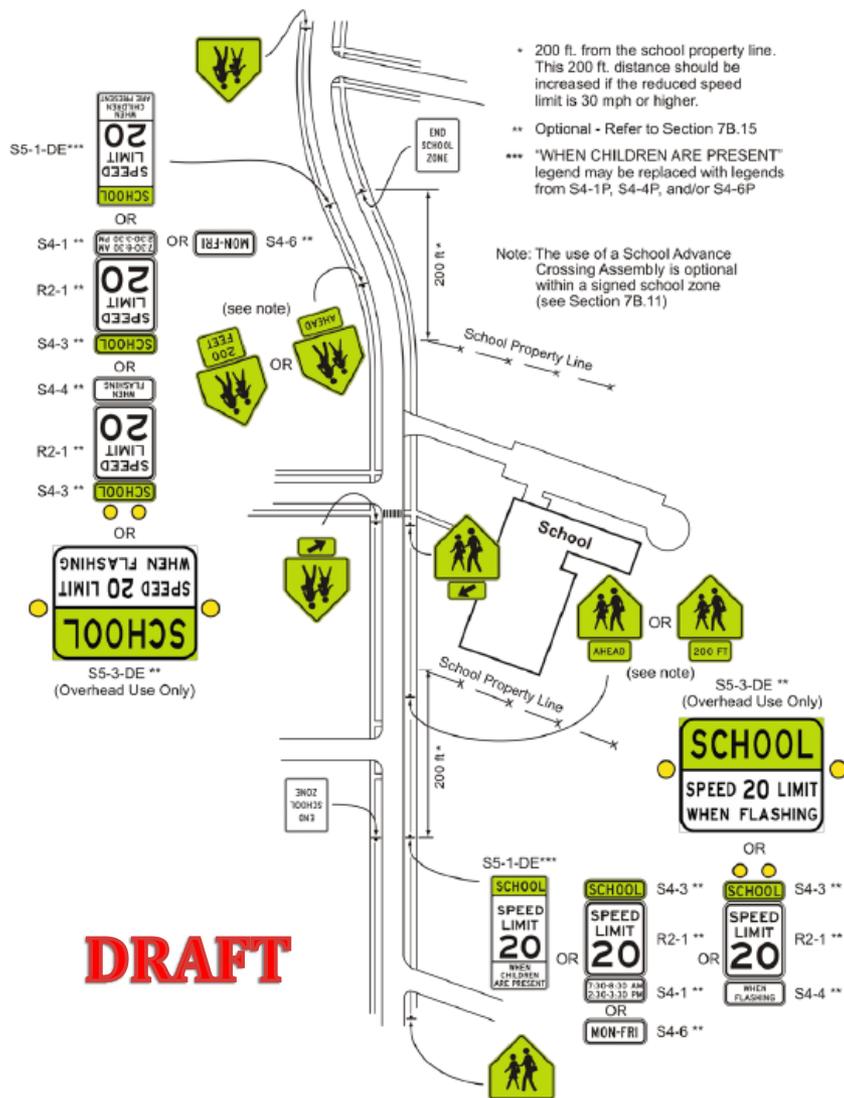
# Section 7B.11 – School Advance Crossing Assembly

Figure 7B-4. Example of Signing for a School Crossing Outside of a School Zone  
(Delaware Revision)



# Section 7B.11 – School Advance Crossing Assembly

**Figure 7B-5. Example of Signing for a School Zone with a Reduced School Speed Limit Zone and a School Crossing (Delaware Revision)**



## Standard:

01 Where increased fines are imposed for traffic violations within a designated school zone, a **BEGIN HIGHER FINES ZONE (R2-10)** sign (see Figure 7B-1) or a **FINES HIGHER (R2-6P)**, **FINES DOUBLE (R2-6aP)**, or **\$XX FINE (R2-6bP)** plaque (see Figure 2B-3) shall be installed as a supplement to the **School Zone (S1-1)** sign to identify the beginning point of the higher fines zone (see Figures 7B-2 and 7B-3).

## New Section:

- New Higher Fines Zone signs
- However, they are currently not used in Delaware
  - DE does not impose increased fines for traffic violations in a school zone



R2-10



R2-11



R2-6P

# Section 7B.12 – School Crossing Assembly

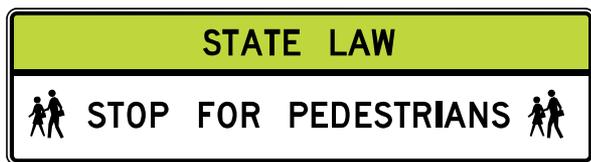
Option:

04 The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see Section 2B.12 and Figure 7B-6) or the In-Street Schoolchildren Crossing (R1-6b or R1-6c) sign (see Figure 7B-6) may be used at unsignalized school crossings. If used at a school crossing, a 12 x 4-inch SCHOOL (S4-3P) plaque (see Figure 7B-6) may be mounted above the sign. The STATE LAW legend on the R1-6 series signs may be omitted.

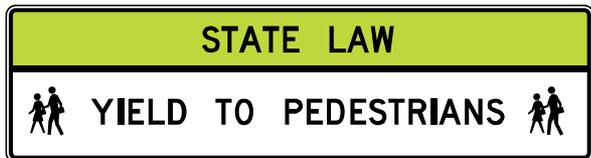
05 The Overhead Pedestrian Crossing (R1-9 or R1-9a) sign (see Section 2B.12 and Figure 2B-2) may be modified to replace the standard pedestrian symbol with the standard schoolchildren symbol and may be used at unsignalized school crossings. The STATE LAW legend on the R1-9 series signs may be omitted.

New Option:

- Schoolchildren symbol may be used on In-Street Crossing signs (R1-6b or R1-6c) and Overhead Pedestrian Crossing Signs (R1-9 or R1-9a)

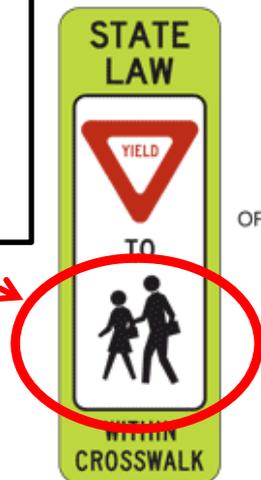


R1-9



R1-9a

Preferred symbol within school zones in DE



R1-6b



R1-6c

# Section 7B.12 – School Crossing Assembly

Option: **DRAFT**

09 (DE Revision) In-Street Pedestrian signs shall only be installed along state-maintained roadways with DeIDOT Traffic approval. If approved, the sponsoring entity shall be responsible for procurement, installation, and maintenance of these signs. The sponsoring entity shall enter into a Right-of-Way Use agreement with DeIDOT, and shall provide a maintenance point of contact with 24-hour/7-day per week availability.

Guidance:

10 (DE Revision) Additional guidance on the use of the STOP FOR or YIELD TO legends and STOP and YIELD sign symbols on In-Street Pedestrian Crossing and Overhead Pedestrian Crossing signs is contained in Section 2B.12

**DE Revision:**  
sponsoring agency must maintain them!

**DE Revision**, from old DE MUTCD with slight revisions:

- In-Street Ped Crossing signs require DeIDOT Traffic approval
- Reference to Section 2B.12:
  - Prior to selecting sign with STOP or YIELD message):
    - DE Code should be reviewed
    - Local laws should be reviewed
  - Current State Law (DE Code): drivers must yield to pedestrians within a crosswalk



## Section 7B.13 – School Bus Stop Ahead Sign (S3-1)

### Guidance:

- 01 *The School Bus Stop Ahead (S3-1) sign (see Figure 7B-1) should be installed in advance of locations where a school bus, when stopped to pick up or discharge passengers, is not visible to road users for an adequate distance and where there is no opportunity to relocate the school bus stop to provide adequate sight distance.*

New sign to replace old word message sign:

- A School Bus Stop Ahead (S3-1) sign should be used when adequate distance for visibility of a stopped school bus is not available*



S3-1

# Section 7B.13 – School Bus Stop Ahead Sign (S3-1)

**OLD**



ADOPT  
A  
HIGHWAY  
CR EDUCATION  
ASSOCIATION

**NEW**



ADOPT  
A  
HIGHWAY  
CR EDUCATION  
ASSOCIATION

**Westville Road**

## Section 7B.13 – School Bus Stop Ahead Sign

### Option: **DRAFT**

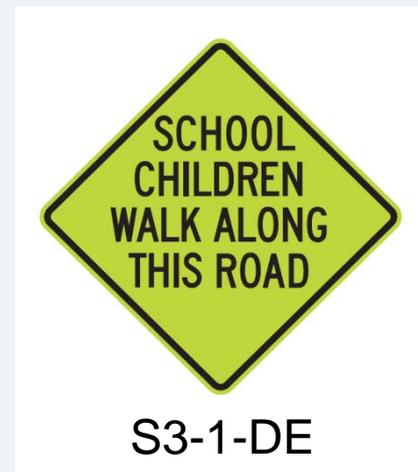
02 (DE Revision) If the School Bus Stop Ahead (S3-1) sign has been considered but determined to be inappropriate, a SCHOOL CHILDREN WALK ALONG THIS ROAD (S3-1-DE) sign (see Figure 7B-1) may be installed.

#### *Guidance:*

03 *Use of the SCHOOL CHILDREN WALK ALONG THIS ROAD (S3-1-DE) sign on state-maintained roads requires approval from DelDOT Traffic.*

### DE Revision:

- Carried forward from the old DE MUTCD the option to use the SCHOOL CHILDREN WALK ALONG THIS ROAD (S3-1-DE) sign
  - Only for use where the School Advance Crossing Assembly (or School Bus Stop Ahead (S3-1) sign) have been considered but deemed inappropriate
  - Requires approval from DelDOT Traffic



# Section 7B.14 – School Bus Turn Ahead Sign (S3-2)

**Option:**

01 The SCHOOL BUS TURN AHEAD (S3-2) sign (see Figure 7B-1) may be installed in advance of locations where a school bus turns around on a roadway at a location not visible to approaching road users for a distance as determined by the “0” column under Condition B of Table 2C-4, and where there is no opportunity to relocate the school bus turn around to provide the distance provided in Table 2C-4.

- New S3-2 Sign
  - May be used in advance of locations where school buses turn around on a roadway, and may not be visible to approaching motorists
  - Visibility distance determined from “0 mph” column under Condition B from Table 2C-4



S3-2

Posted or 85th-Percentile Speed	Advance Placement Distance <sup>1</sup>								
	Condition A: Speed reduction and lane changing in heavy traffic <sup>2</sup>	Condition B: Deceleration to the listed advisory speed (mph) for the condition							
		0 <sup>3</sup>	10 <sup>4</sup>	20 <sup>4</sup>	30 <sup>4</sup>	40 <sup>4</sup>	50 <sup>4</sup>	60 <sup>4</sup>	70 <sup>4</sup>
20 mph	225 ft	100 ft <sup>6</sup>	N/A <sup>5</sup>	—	—	—	—	—	—
25 mph	325 ft	100 ft <sup>6</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	—	—	—	—	—
30 mph	460 ft	100 ft <sup>6</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	—	—	—	—	—
35 mph	565 ft	100 ft <sup>6</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	—	—	—	—
40 mph	670 ft	125 ft	100 ft <sup>6</sup>	100 ft <sup>6</sup>	N/A <sup>5</sup>	—	—	—	—
45 mph	775 ft	175 ft	125 ft	100 ft <sup>6</sup>	100 ft <sup>6</sup>	N/A <sup>5</sup>	—	—	—
50 mph	885 ft	250 ft	200 ft	175 ft	125 ft	100 ft <sup>6</sup>	—	—	—
55 mph	990 ft	325 ft	275 ft	225 ft	200 ft	125 ft	N/A <sup>5</sup>	—	—
60 mph	1,100 ft	400 ft	350 ft	325 ft	275 ft	200 ft	100 ft <sup>6</sup>	—	—
65 mph	1,200 ft	475 ft	450 ft	400 ft	350 ft	275 ft	200 ft	100 ft <sup>6</sup>	—
70 mph	1,250 ft	550 ft	525 ft	500 ft	450 ft	375 ft	275 ft	150 ft	—
75 mph	1,350 ft	650 ft	625 ft	600 ft	550 ft	475 ft	375 ft	250 ft	100 ft <sup>6</sup>

## Standard:

04 Except as provided in Paragraph 5, the downstream end of an authorized and posted reduced school speed limit zone shall be identified with an END SCHOOL SPEED LIMIT (S5-3) sign (see Figures 7B-1 and 7B-5).

## Guidance: **DRAFT**

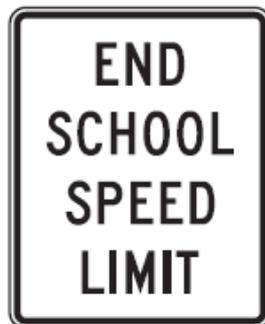
05A (DE Revision) On state-maintained roads, the END SCHOOL ZONE (S5-2) sign should be used to designate the end of the school zone in lieu of the regulatory speed limit sign.

## New Sign:

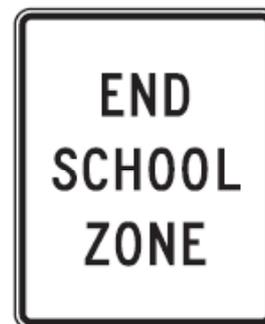
- New END SCHOOL SPEED LIMIT (S5-3) sign to identify end of reduced school speed limit zone

## DE Revision:

- DE will use END SCHOOL ZONE (S5-2) sign instead



S5-3



S5-2

# (old) Section 7B.15 – DRUG FREE SCHOOL ZONE Sign

## ~~Section 7B.15 DRUG FREE SCHOOL ZONE Sign (S5-2-DE)~~

### ~~Standard:~~

~~A Drug-Free School Zone shall be marked with a DRUG FREE SCHOOL ZONE (S5-2-DE) sign as near as practicable to the point at which the roadway crosses into the zone.~~

### ~~Support:~~

~~In Delaware, as specified in the Delaware Code (Title 16, Chapter 47, Subchapter IV, §4767), the distribution, delivery, or possession of a controlled substance within 1,000 feet of school property is a felony.~~

- Old Manual included section on DRUG FREE SCHOOL ZONE sign
- Was a DE-Specific Section
- **Not included in new DE MUTCD**
- Existing signs may remain until the end of their useful life



S5-2-DE

## Section 7B.18 – Flashing Beacons at School Crossings

### Option:

- 01 (DE Revision) Flashing yellow beacons may be installed to supplement standard school signing and markings for the purpose of providing advanced warning during specified times of operation when justified.
- 02 (DE Revision) A flashing yellow beacon may be justified when ALL of the following conditions are fulfilled:
  1. At least 40 school pedestrians use the crossing during each of any two hours (not necessarily consecutive) of a normal school day;
  2. The crossing is at least 600 ft from the nearest alternate crossing controlled by traffic signals, stop signs or crossing guards;
  3. The vehicular volume through the crossing exceeds 200 vehicles per hour in urban areas or 140 vehicles per hour in rural areas during the same hour the students are going to and from school during normal school hours; and
  4. The critical approach speeds exceeds 35 mph or the approach visibility is less than the stopping sight distance.

### DE Revision (from old manual)

- This DeIDOT addition to the MUTCD, formerly 7D.02, was originally from Caltrans' guidelines
- Provides qualitative "warrants" for flashing beacons at schools.



**Booker T. Washington Elementary**

# Chapter 7C – Markings



**Guidance: DRAFT**

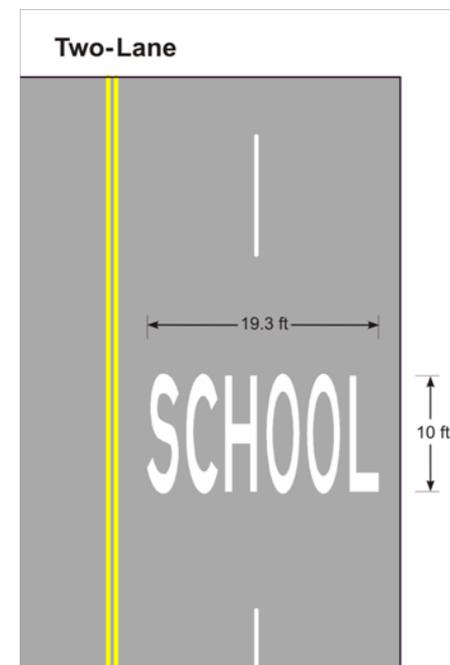
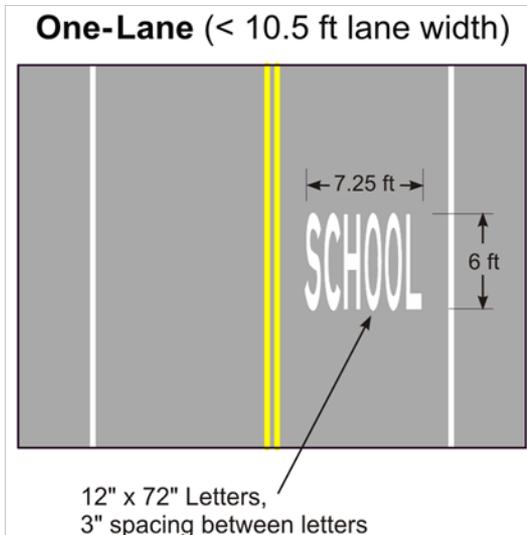
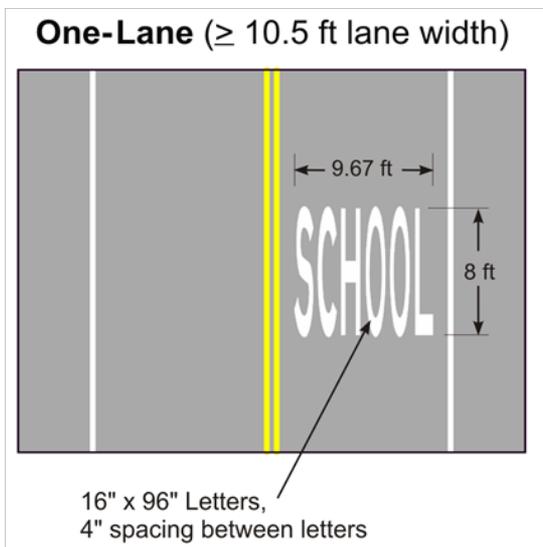
01A (DE Revision) Pavement word and symbol markings should not extend beyond the centerline, if present, into the opposing direction of travel.

01B (DE Revision) When installed in a single lane with a width of 10.5 feet or greater, the SCHOOL word marking should consist of 16 inch wide by 96 inch high letters, separated by 4 inch spaces (see Figure 7C-1).

01C (DE Revision) When installed in a single lane with a width less than 10.5 feet, the SCHOOL word marking should consist of 12 inch wide by 72 inch high letters, separated by 3 inch spaces (see Figure 7C-1).

## DE Revision:

- Markings should not extend beyond centerline into opposing direction
- From the DeIDOT MUTCD FAQ's (May 2009):



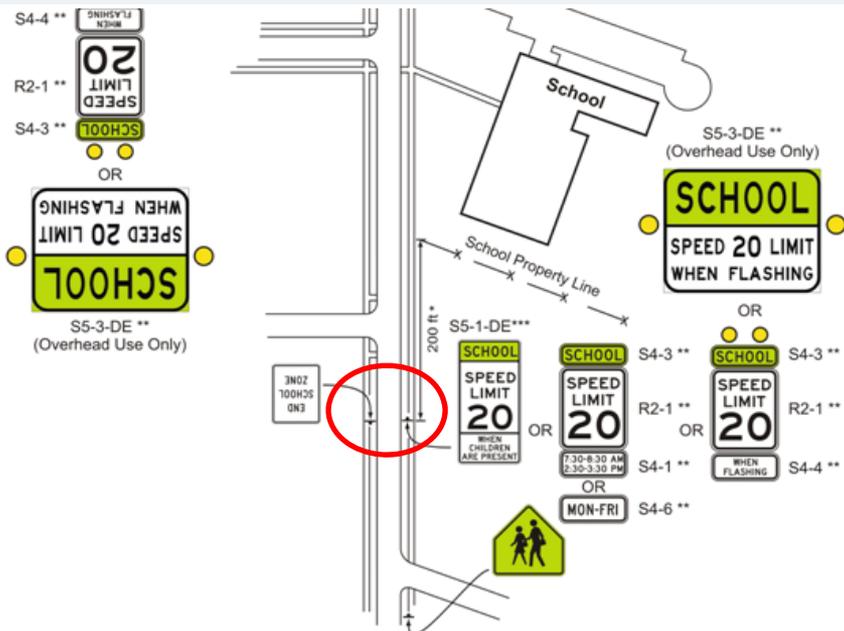
**DRAFT**

02A (DE Revision) The SCHOOL word marking should be placed at the same location of the School Zone (S1-1) sign approaching the school zone.

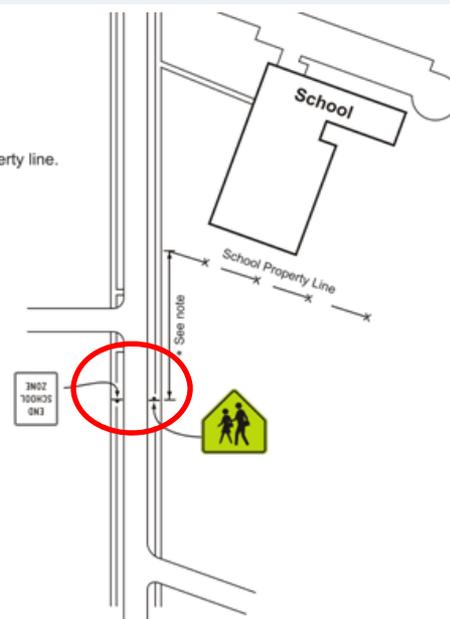
Draft Text will be modified based on recent DE Register comment

## DE Revision:

- The SCHOOL Marking should be placed adjacent to the Speed Limit Sign, if present.
- If no Speed Limit Sign is present, it should be placed adjacent to the S1-1 School Zone Sign



\* 200 ft. from the school property line.



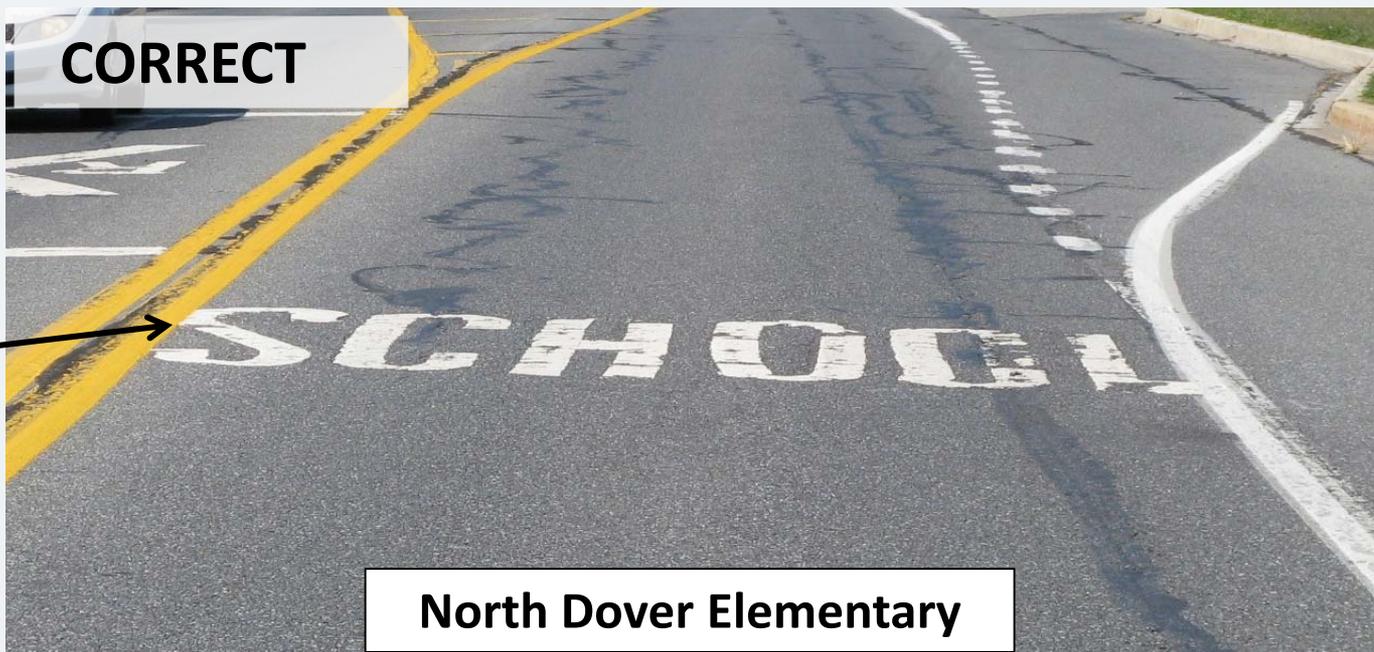
**INCORRECT**



SCHOOL word marking extends into the departure lane

**South Dover Elementary**

**CORRECT**



SCHOOL word marking is scaled to fit one lane (although not quite in scale with new guidance in Fig 7C-1)

**North Dover Elementary**

## Section 7C.04 – Stop Lines (DE Revision)

### Section 7C.04 Stop Lines (DE Revision)

**DRAFT**

Support:

01 (DE Revision) Section 3B.16 contains provisions regarding the placement, design, and appropriate use of stop lines.

Guidance:

02 (DE Revision) Stop lines should not be installed along uncontrolled approaches in school areas for the sole purpose of indicating stopping points for motorists when crossing guards are present.

Delaware Guidance:

- *A stop line should not be installed in a school area just to mark the stopping point for drivers when a crossing guard is present*



# Chapter 7D – Crossing Supervision



### Guidance:

- 02 *Adult crossing guards should possess the following minimum qualifications:*
- A. Average intelligence;*
  - B. Good physical condition, including sight, hearing, and ability to move and maneuver quickly in order to avoid danger from errant vehicles;*
  - C. Ability to control a STOP paddle effectively to provide approaching road users with a clear, fully direct view of the paddle's STOP message during the entire crossing movement;*
  - D. Ability to communicate specific instructions clearly, firmly, and courteously;*
  - E. Ability to recognize potentially dangerous traffic situations and warn and manage students in sufficient time to avoid injury.*
  - F. Mental alertness;*
  - G. Neat appearance;*
  - H. Good character;*
  - I. Dependability; and*
  - J. An overall sense of responsibility for the safety of students.*

### New Guidance:

- **Several new qualifications added:**
  - Ability to move quickly
  - Ability to control a STOP paddle effectively
  - Ability to communicate specific instructions
  - Ability to recognize potentially dangerous situations

## Section 7D.04 Uniform of Adult Crossing Guards

### Standard:

- 01 Law enforcement officers performing school crossing supervision and adult crossing guards shall wear high-visibility retroreflective safety apparel labeled as ANSI 107-2004 standard performance for Class 2 as described in Section 6E.02.

### New Standard:

- **Adult crossing guards shall wear Class 2 high-visibility retroreflective safety apparel**



**Must Comply by  
December 31,  
2011**

### Standard:

- 01 **Adult crossing guards shall not direct traffic in the usual law enforcement regulatory sense. In the control of traffic, they shall pick opportune times to create a sufficient gap in the traffic flow. At these times, they shall stand in the roadway to indicate that pedestrians are about to use or are using the crosswalk, and that all vehicular traffic must stop.**
- 02 **Adult crossing guards shall use a STOP paddle. The STOP paddle shall be the primary hand-signaling device.**

### New Standard:

- **Shall not direct traffic in the usual law enforcement regulatory sense**
- **Shall pick opportune times to create a sufficient gap in traffic**
- **Shall stand in roadway**
- **Shall use a STOP paddle**



Guidance: **DRAFT**

01A (DE Revision) *Adult crossing guards should understand how to effectively control traffic, balancing the demands of all road users.*

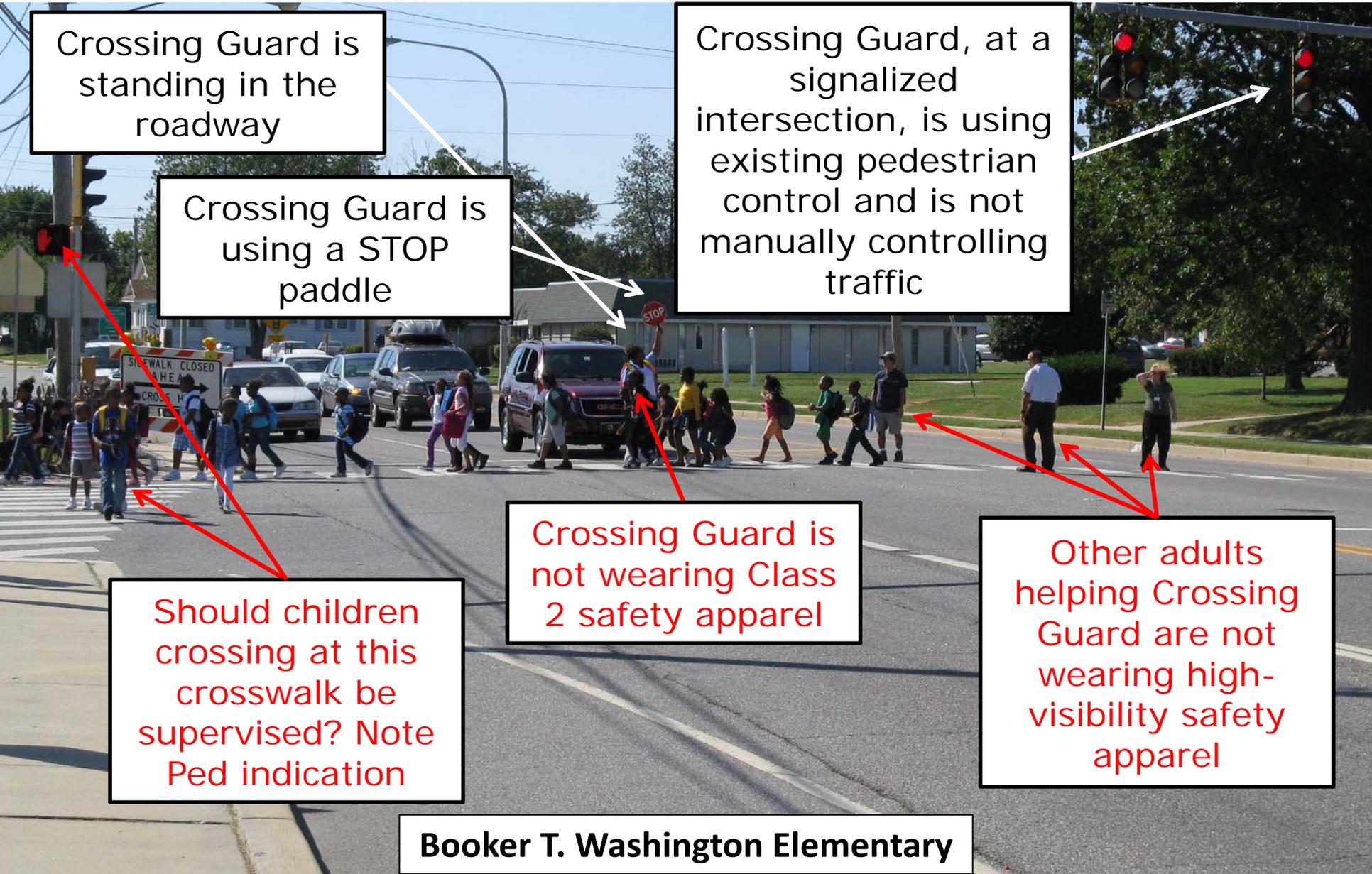
01B (DE Revision) *Adult crossing guards should be aware of the impact their control can have on the flow of traffic on the main road.*

01C (DE Revision) *Adult crossing guards should not keep traffic stopped on the main road for an unreasonable length of time.*

01D (DE Revision) *Adult crossing guards at signalized intersections should utilize existing pedestrian pushbutton controls and should not manually control traffic movements at the traffic signal.*

### **DE Revisions** (Some from old DE MUTCD):

- *Should balance demands of all road users*
- *Should be aware of impacts on flow of traffic on main road*
- *Should not keep traffic stopped on main road for an unreasonable length of time*
- *At signalized intersections, should use ped pushbuttons and not manually control traffic movements at signal*



Crossing Guard is standing in the roadway

Crossing Guard is using a STOP paddle

Crossing Guard, at a signalized intersection, is using existing pedestrian control and is not manually controlling traffic

Should children crossing at this crosswalk be supervised? Note Ped indication

Crossing Guard is not wearing Class 2 safety apparel

Other adults helping Crossing Guard are not wearing high-visibility safety apparel

**Booker T. Washington Elementary**